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ABSTRACT

Previous studies have revealed that the correlation between communication apprehension (CA) and academic achievement may be significantly different for male and female elementary school students. A study investigated the effects of CA, sex of student, and three teacher characteristics on teacher expectations of academic achievement. Subjects, 221 elementary and middle school teachers (grades K-8) in a midwestern community, responded to a questionnaire in which sex of student and student level of CA were manipulated and which requested teachers to estimate the academic success of the student in seven areas. Teachers also completed several demographic questions and the Personal Report of Communication Apprehension-24. Results indicated that teachers possess significantly different achievement expectations for high and low communication apprehensive children. Sex of student, teacher level of CA, teacher experience, and teacher grade level were not found to influence teacher expectations. (Twenty-one references are included.) (Author/JK)

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Teacher Expectations of the
Communication Apprehensive Student

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Abstract

This study examined the effects of communication apprehension (CA), student sex, and three teacher characteristics (i.e., teacher level of CA, teacher experience and teacher grade level) on teacher expectations of academic achievement. Subjects were 221 elementary and middle school teachers (grades K-8) in a midwestern community. Teachers responded to a questionnaire in which student sex and student level of CA were manipulated and which requested teachers to estimate the academic success of the student in seven areas. Teachers also completed several demographic questions and the Personal Report of Communication Apprehension-24 (PRCA-24). Results indicated that teachers possess significantly different achievement expectations for high and low communication apprehensive children. Student sex, teacher level of CA, teacher experience, and teacher grade level were not found to influence teacher expectations. Prior research has revealed that the correlation between CA and academic achievement may be significantly different for male and female elementary school students. Discussion centered on the role of teacher expectations as an explanation of the sex difference in correlations observed in prior research. Implications for teachers are also discussed.

Teacher Expectations of the Communication Apprehensive Student

Numerous empirical studies have explored the relationship between communication apprehension (CA), a broad-based fear or anxiety associated with oral communication (McCroskey, 1984), and academic achievement (Bashore, 1971; Comadena, 1985; Davis & Scott, 1978; Hurt & Preiss, 1978; McCroskey & Andersen, 1976; Powers & Smythe, 1980; Scott & Wheelless, 1977). This developing body of literature indicates that CA is significantly and negatively related to academic achievement among students at the elementary, middle school, high school, and college levels.

Recent research involving elementary school children indicates that the relationship between CA and academic achievement may be more negative for males than females. A study of 144 elementary school children in grades 2-5 (Prusank & Comadena, 1987) revealed that correlations between CA, as assessed by the Measure of Elementary Communication Apprehension (Garrison & Garrison, 1979), and subtests on the Iowa Test of Basic Skills for girls were near zero and statistically non-significant (vocabulary: $r = -.03$; reading: $r = -.11$; language: $r = -.007$; work skills: $r = -.15$; mathematics: $r = -.06$; and test composite: $r = -.06$). For boys, however, the same correlations were much higher and each was statistically significant (vocabulary: $r = -.34$; reading: $r = -.25$; language: $r = -.35$; work skills: $r = -.34$; mathematics: $r = -.33$; and test composite: $r = -.36$).

Prusank and Comadena (1987) speculated that the sex difference in correlations may be, in part, a function of different achievement expectations that teachers have for boys and girls high in CA. A

considerable amount of research in education has revealed that teacher expectations may have a profound effect on student achievement (Dusek, 1985; Rosenthal & Jacobson, 1968). Furthermore, research has revealed that student level of communication apprehension may influence teacher achievement expectations. Several studies have demonstrated that teachers expect lower levels of achievement from high communication apprehensive students than low communication apprehensive students (McCroskey & Daly, 1976; Smythe & Powers, 1978). However, these studies have not determined if teachers possess different achievement expectations for male and female elementary school children both high in CA. The primary purpose of this study was to determine if elementary school teachers possess different achievement expectations for boys and girls both high in CA. There is some literature that suggests that teacher expectations of communication apprehensive children may be mediated by student sex.

The notion that teacher achievement expectations are mediated by student sex suggests that teachers perceive CA as a more debilitating trait in boys than girls. Bronson (1966) notes that in our culture it is more appropriate for girls than boys to be seen as shy. The traditional male role requires initiative or assertiveness in social interactions whereas the traditional feminine role is associated with a relatively passive social posture (Cheek, Carpentieri, Smith, Rierdan, & Koff, 1986). If teachers hold these rather traditional, stereotypic views of children in the elementary grade levels, then we might expect to observe differences in teacher achievement expectations for boys and girls both high in CA. For example, teachers may perceive that high CA and the disaffiliative behavior

that may result from it to be more "normal" for girls and expect girls to effectively cope with this disposition. And since girls tend to demonstrate higher levels of achievement at the elementary grade levels (Maccoby, 1966; Stockard & Wood, 1984), teachers may feel that girls are indeed capable of effectively coping with their anxiety about communication. On the otherhand, teachers may view high CA to be less characteristic of boys, individuals who are expected to be "assertive" in their social interactions with others, and expect lower levels of achievement to follow from it. In short, at the elementary grade levels, teachers may have very different stereotypes and different achievement expectations for high communication apprehensive boys and girls.

A secondary purpose of the present study was to explore the interactive effects of several teacher characteristics and student level of CA on teacher expectations of achievement. A recent review of the instructional communication literature (Staton-Spicer & Wulff, 1984) revealed that research on CA, teacher expectancies, and academic achievement has largely ignored variables pertaining to teacher characteristics. In the present study, teacher level of CA, amount of teaching experience, and teacher grade level (i.e., elementary vs. middle school) were explored because these factors may influence the development of stereotypes in teachers or affect teacher ability to empathize with students. One might expect, for example, that as experience increases teachers develop more rigid stereotypes of children because they have more time and information upon which to form such stereotypes (Babad, 1985). Furthermore, teachers who have a lot of experience are older and more likely to hold the traditional

stereotypes of males and females described earlier. Teacher level of CA may be a factor in this process in that teachers high in CA may be better able to understand the emotional needs and abilities of children who are also high in CA. Finally, teacher grade level was explored to determine if elementary school teachers hold different expectations for communication apprehensive students than middle school teachers.

In summary, this study examined the effects of CA, student sex, and three teacher characteristics on teacher expectations of academic achievement. The following hypothesis and research questions were examined in this study:

H: Teachers' expectations of academic achievement are more positive for students who are low in CA than for students who are high in CA.

RQ(1): Do student level of CA and student sex interact to influence teachers' expectations of academic achievement for elementary and middle school children?

RQ(2): Do teacher level of CA, teacher grade level, and teacher tenure have an influence on teachers' expectations of academic achievement for elementary and middle school children?

Methods

Subjects

Subjects were 221 elementary and middle school teachers in a midwestern community. A majority of the teachers (78%) in the sample taught at the elementary level (grades K-6), while the remaining 22%

were middle school teachers.

Variables

There were two independent variables in the present study: student level of CA (low, high) and student sex. The dependent variable was teacher achievement expectations. To test the hypothesis and to answer the research questions, a 4-page questionnaire was constructed that contained the manipulation of the independent variables, the measurement of the dependent variables, and the three additional teacher characteristics explored in the present study (i.e., teacher CA, teacher experience, and teacher grade level).

The first page of the questionnaire was a cover letter that introduced the project and provided teachers specific instructions for completing the questionnaire. The second page of the questionnaire contained the experimental manipulations and scales to measure teacher expectations of achievement. Specifically, the second page contained a description of a child. That child was either male or female. Furthermore, that child was described as either low or high in communication apprehension (procedure adapted from McCroskey and Daly, 1976). For example, the low communication apprehensive child was described as an outgoing individual who likes to participate in class, who sits in the front of the room, and who is easy to get to know. The high communication apprehensive child was described as a very quiet individual who seldom participates in class discussions, who sits in the back of the room, and who is difficult to get to know. Such descriptions, according to McCroskey and Daly (1976), resemble notes which are written by teachers and are included in childrens' school files. The descriptions "also represent the kind of

information likely to be passed from teacher to teacher by word-of-mouth in an informal way" (p. 69). Thus, teachers were asked to evaluate either a male or a female who was either high or low in communication apprehension.

Teachers were instructed to read the description of the hypothetical child in the questionnaire and estimate his or her likelihood of academic success. Teacher expectations of achievement in seven areas (reading, arithmetic, social studies, science, art, overall achievement, and success in future education) served as the dependent variables for the present study. For each area, teachers were asked to report their perceptions of the likelihood of success of the child by circling a number from 0 (very low) to 9 (very high). Teachers were also asked to estimate the level of communication anxiety and the level of class participation of the child he/she evaluated, and to predict the child's likelihood of success in relationships with other students. These variables were included as checks on the manipulation of student level of CA.

On the third page of the questionnaire, teachers were asked to complete the Personal Report of Communication Apprehension-24 (PRCA-24: McCroskey, 1982). On the fourth page of the questionnaire, teachers reported their sex, the grade level in which they currently taught and the overall number of years of teaching experience they had.

Procedures

Questionnaires were distributed to teachers via their principals. Principals were informed of the nature of the experiment but were instructed not to disclose that purpose to their teachers. All

teachers in a given school were given the same version of the questionnaire to complete to avoid disclosing the experimental manipulations. Completed questionnaires were collected by the principals of the participating elementary and middle schools and forwarded to the researchers.

Statistical Analysis

To test the hypothesis and to answer the research questions, teachers' evaluations of student success were submitted to a 2 (student sex) x 2 (low versus high CA) multivariate analysis of variance (MANOVA). The seven areas of achievement evaluated by teachers served as dependent variables. To answer the research questions, a series of MANOVAs were performed with teacher level of CA, teacher tenure, and teacher grade level individually added to the MANOVA model described above. Alpha was set at .05 for all tests of significance.

Results

Manipulation Check

Prior to calculating tests of the hypothesis and research questions, tests were conducted to assess the effectiveness of the CA manipulation. Three items on the test instrument completed by teachers were analyzed. Those items were designed to measure teachers' perceptions of students peer relationships, class participation, and anxiety about communication. Results indicated that teachers perceived the student low in CA, compared to the student high in CA, to have greater success in relationships with other students ($t=18.22$, $df=219$, $p=.001$) and to exhibit higher levels of class participation ($t=33.77$, $df=219$, $p=.001$). While teachers'

perceptions of the level of anxiety about communication differed significantly for the two students ($t=8.12$, $df=219$, $p=.000$), the difference was not in the expected direction. That is, teachers reported that the student low in CA would experience greater anxiety about communication than would the student high in CA. This finding appears to be a function of a response set teachers developed in completing the research questionnaire.

The statement concerning student anxiety about communication ("Estimate Susie's level of anxiety about communication."), which requested a response from 0 (low) to 9 (high), appeared at the very end of the set of statements used to assess achievement expectations. Recall that those statements used the same 0 (low) to 9 (high) response format described above. Thus, the questionnaire contains a list of statements and phrases to which teachers must report a number from 0 to 9. It appears that teachers did not take time to accurately read the last statement in this list. Depending upon the CA manipulation (low vs. high), teachers reported either a high or a low likelihood of success in the seven areas of study by consistently circling either a 9 (for low CA child) or 0 (for high CA child). When teachers arrived at the statement concerning anxiety about communication, they did not accurately read the statement and "assumed" that either a 0 or 9 would be an appropriate response given the responses to the previous statements. Although there was obviously a problem with this item, the results reported in the next section indicate that the manipulation worked.

Primary Results

To test the hypothesis and to answer the research questions, multivariate analysis of variance (MANOVA) was performed with student sex and student level of CA serving as independent variables. Seven dependent variables were examined. They were teacher perceptions of achievement in reading, arithmetic, social studies, science, art, overall achievement, and success in future education. Bartlett's test of sphericity indicated that the dependent variables were sufficiently correlated to warrant a multivariate (MANOVA) test ($x^2 = 1395.99$, $df = 21$, $p < .001$).

Results supported the hypothesis. A significant multivariate main effect was observed for student level of CA (Wilk's $\lambda = .587$, $F(7, 211) = 21.17$, $p = .001$). Univariate tests conducted on each of the dependent variables confirmed the multivariate main effect. Teachers' achievement expectations were more positive for students low in CA than for students high in CA. Significant F ratios were obtained for all of the dependent variables except arithmetic achievement. The observed F ratios were as follows: reading ($F = 9.40$, $df = 1, 217$, $p < .002$, $\omega^2 = .07$); arithmetic ($F = 2.58$, $df = 1, 217$, $p < .110$, $\omega^2 = .02$); social studies ($F = 36.62$, $df = 1, 217$, $p < .000$, $\omega^2 = .25$); science ($F = 30.12$, $df = 1, 217$, $p < .000$, $\omega^2 = .21$); art ($F = 6.71$, $df = 1, 217$, $p < .010$, $\omega^2 = .05$); overall achievement ($F = 55.42$, $df = 1, 217$, $p < .000$, $\omega^2 = .33$); and success in future education ($F = 61.46$, $df = 1, 217$, $p < .000$, $\omega^2 = .36$).

Concerning the first research question, results indicated that student sex and student level of CA do not interact to influence teacher achievement expectations. The MANOVA for this interaction was

not significant (Wilk's $\lambda = .965$, $F(7,207) = 1.06$, $p = .390$). In addition, the univariate tests revealed no significant interactions for any of the seven dependent variables examined.

To answer the second research question, teacher level of CA, teacher tenure, and teacher grade level were independently entered into the MANOVA model described above to determine if these variables interacted with student CA and student sex to influence teacher achievement expectations. A median-split was used to create groups high and low in CA and tenure. For grade level, teachers were classified as either an elementary or middle school teacher.

In the first analysis, teacher CA (low, high) was entered into the MANOVA model. The 2 (student CA) $\times$ 2 (student sex) $\times$ 2 (teacher CA) analysis failed to produce a significant 3-way interaction (Wilk's $\lambda = .971$, $F(7,207) = .895$, $p = .511$) or a significant 2-way interaction involving teacher CA and student CA (Wilk's $\lambda = .986$, $F(7,207) = .418$, $p = .891$).

In the second analysis, teacher tenure (low, high) was examined. The 2 (student CA) $\times$ 2 (student sex) $\times$ 2 (tenure) MANOVA failed to produce a significant 3-way interaction (Wilk's $\lambda = .957$, $F(7,207) = 1.33$, $p = .236$) or a significant 2-way interaction involving teacher tenure and student CA (Wilk's $\lambda = .964$, $F(7,207) = 1.09$, $p = .370$).

Finally, teacher grade level was examined. The 2 (student CA) $\times$ 2 (student sex) $\times$ 2 (elementary, middle school) MANOVA failed to produce a significant 3-way interaction (Wilk's $\lambda = .970$, $F(7,201) = .880$, $p = .523$) or a significant 2-way interaction involving teacher grade level and student CA (Wilk's $\lambda = .952$, $F(7,201) = 1.46$,

$p=.185$).

In summary, and in response to the second research question, the last three analyses reported in this section indicate that teacher achievement expectations for high and low communication apprehensive children are not influenced by teacher level of CA, teacher tenure, or teacher grade level.

Discussion

A recent study (Prusank & Comadena, 1987) that examined the relationship between CA and academic achievement among elementary school students found that the relationship between CA and academic achievement was more negative for males than for females. In that study, the correlations between CA and various subtests (i.e., vocabulary, reading, language, work skills, mathematics, and the test composite) of the Iowa Test of Basic Skills were near zero and non-significant for females, whereas for males, the correlations ranged from $-.25$ to $-.36$ and all but one (reading) was statistically significant. In the Prusank and Comadena (1987) study, it was speculated that the difference in these correlations may be a function of different achievement expectations that teachers have for high communication anxious males and females. The present study, then, was designed to (a) determine if the observed differences in these correlations could be explained, in part, by differential teacher achievement expectations for male and female students high in CA and (b) explore the effects of various teacher characteristics on the development of achievement expectations of communication apprehensive students.

While results indicated that teachers have higher achievement

expectations for children low in CA than for children high in CA, a finding consistent with earlier research in this area (McCroskey & Daly, 1976), teachers were not observed to possess different expectations for males and females high in CA. Student sex and student level of CA did not interact to influence teacher achievement expectations.

Concerning the main effect for student CA identified above, it is interesting to note that the largest effect was observed for overall achievement and success in future education. An examination of the omega squared scores (an index of the magnitude of effect of an independent variable) presented in the Results section will reveal that student CA had the largest effect on overall achievement and success in future education, accounting for 33% and 36% of the variance in these variables respectively. Teachers apparently perceive that CA is likely to have a negative, long-term impact on the child.

As mentioned above, this study was designed to explore the extent to which various teacher characteristics, specifically teacher level of CA, teacher tenure or experience as a teacher and teacher grade level, interacted with student level of CA to influence achievement expectations. Such characteristics were thought to influence teachers' ability to recognize student dispositions (such as CA) and to empathize with students and, thus, influence their expectation formation process. As noted in the Introduction to this report, no prior research was identified that examined such teacher characteristics in the expectation formation process. Thus specific predictions were not made. Teacher level of CA, teacher tenure and

teacher grade level were not found to influence teacher expectations of high and low communication apprehensive children.

In summary, the results of this study, which are consistent with those reported in other examinations of teacher expectations of the communication apprehensive student (McCroskey & Daly, 1976; Smythe & Powers, 1978), indicate that teachers develop negative achievement expectations for students high in CA. Student sex, teacher level of CA, teacher tenure and teacher grade level were not found to affect teacher expectations. The implication of this study for teachers should be clear. Elementary school teachers must avoid developing negative achievement expectations for high communication apprehensive children. CA is not meaningfully related to student ability (Bashore, 1971; McCroskey, Daly, & Sorensen, 1976). Teachers must assume that quiet children can perform as well as their outgoing counterparts in the classroom. Furthermore, teachers should perform behaviors that indicate that they expect the same (high) levels of achievement from low and high communication apprehensive children.

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